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INTERNATIONAL PRELIMINARY EXAMINATION REPORT
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/EP 03/08645	International filing date (day/month/year) 04.08.2003	Priority date (day/month/year) 08.08.2002
International Patent Classification (IPC) or both national classification and IPC A23L1/212		
Applicant UNILEVER N.V. et al		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 6 sheets, including this cover sheet.
 - ☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 1 sheets.

3. This report contains indications relating to the following items:
 - I ☒ Basis of the opinion
 - II ☐ Priority
 - III ☒ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV ☐ Lack of unity of invention
 - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☐ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☐ Certain observations on the international application

Date of submission of the demand 20.12.2003	Date of completion of this report 12.11.2004
Name and mailing address of the international preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016	Authorized Officer Vuillamy, V Telephone No. +31 70 340-3504 

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/EP 03/08645

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-21 as originally filed

Claims, Numbers

10 (part), 11-21 as originally filed

1-9, 10 (part) received on 27.09.2004 with letter of 27.09.2004

Drawings, Sheets

1-4 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/EP 03/08645

5. ☒ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).
(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

see separate sheet

6. Additional observations, if necessary:

III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:
- ☐ the entire international application,
 - ☒ claims Nos. 1-5, 12-21
because:
 - ☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (specify):
 - ☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):
 - ☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.
 - ☒ no international search report has been established for the said claims Nos. 1-5, 12, 14-21
2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:
- ☐ the written form has not been furnished or does not comply with the Standard.
 - ☐ the computer readable form has not been furnished or does not comply with the Standard.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	
	No: Claims	6-11
Inventive step (IS)	Yes: Claims	
	No: Claims	6-11
Industrial applicability (IA)	Yes: Claims	6-11
	No: Claims	

2. Citations and explanations

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/EP 03/08645

see separate sheet

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/EP 03/08645

Re Item I

Basis of the Report

The amendment filed with the letter dated 27/09/2004 introduces subject-matter which extends beyond the content of the application as filed, contrary to Article 34(2)(b) PCT. The amendment concerned is the following:

claim 6 'the term processed tomato product is defined as a product that comprises tomatoes which are subjected to a concentration step'. In the application as filed, this term is defined (cf. p.1, l.12-13 and p.6, l.19-22) as involving at least hot- or cold-breaking and a concentration step.

This report has been established as if the amendment had not been made, i.e. **on the original set of claims.**

Re Item III

Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

No examination is carried out on independent claims 1, 12 and 18-20 (and dependent claims 2-5, 13-17, 21) because these claims were not fully searched for the following reasons:

Independent claims 1, 12, 18-20 (and depending claims 2-5, 14-17, 21) relate to tomato products and the corresponding process defined by reference to a desirable characteristic or property, namely Bostwick value, polygalacturonase and exogalactanase level, or 180bp fragment. The claims cover all products and methods having this characteristic or property, whereas the application provides support within the meaning of Article 6 and/or disclosure within the meaning of Article 5 PCT for only a very limited number of such products and methods.

Independent of the above reasoning, the claims also lack clarity (Article 6 PCT). An attempt is made to define the product and process by reference to a result to be achieved. Again, this lack of clarity in the present case is such as to render a meaningful search over the whole of the claimed scope impossible.

In addition, the claims relate to products and methods defined (inter alia) by reference to the following parameter: Bostwick value, 180bp fragment. The use of these parameters in the present context is considered to lead to a lack of clarity within the meaning of Article 6 PCT. It is impossible to compare the parameters the applicant has chosen to employ with what is set out in the prior art.

Consequently, the search was carried out for those parts of the claims which appear to be clear, supported and disclosed, namely (cf. p.3, l.25-27; p.5, l.33 to p.6, l.32; p.7, l.13-16; p.9, l.8-20; ex.1; claims 6-11 and 13) those parts relating to processed ripening-inhibited tomatoes being homozygous for the rin, nor, Nr or alc genes, or heterozygous for combinations of two of these genes.

In view of the above objections, **only claims 6-11 have been examined.**

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/EP 03/08645

Re Item V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

The following documents are referred to in this communication; the numbering will be adhered to in the rest of the procedure:

D1	Euphytica, 125(2), 2002	D2	CSIRO Fd Res. Q.,38, 1978
D3	J. Hort. Sc., 58, 1983	D4	J. Sci. Food Agric., 31, 1980
D5	Hortscience, 13(5), 1978	D6	J. Amer. Soc. Hort. Sci., 109(4), 1984
D7	J. Amer. Soc. Hort. Sci., 107(3), 1982	D8	J. Plant Physiol., 139, pp.140-145, 1991

The present application does not meet the requirements of Article 33 PCT because the subject-matter of claims 6-11 is not new in the sense of Article 33(2) PCT.

V.1/ D1 discloses (cf. tables 5-7) tomatoes homozygous for alc, and their analysis (implying some form of processing into paste). D1 further discloses alc/alc tomatoes further comprising og and/or hp genes. The subject-matter of claims 6-11 is therefore not new.

V.2/ D2 discloses (cf. table 2) tomatoes homozygous for nor, and their analysis (implying some form of processing into paste). The subject-matter of claims 6, 7, 11 is therefore not new.

V.3/ The above objection applies *mutatis mutandis* to claims 6, 7 and 11 over D3 (cf. table I; figures); D4 (cf. tables 1, 2) ; D5 (cf. table 1); D6 (cf. table 11); D7 (cf. tables 1-4) or D8 (cf. tables 1-4).

WO 2004/017760

22

PCT/EP2003/008645

Amended sheet
27-9-2004

CLAIMS

1. Tomato paste having an increased consistency such that when measured at an insoluble solids interval of 2.5-3.6% at 12°Brix:
(Bostwick value) $< 10.5 - 2.3822 \times (\text{percentage of insoluble solids})$.
2. Tomato paste according to claim 1, such that when measured at insoluble solids interval of 2.5-3.6% at 12°Brix:
(Bostwick value) $< 10.0 - 2.3822 \times (\text{percentage of insoluble solids})$.
3. Tomato paste according to claim 2, such that when measured at an insoluble solids interval of 2.5-3.6% at 12°Brix:
(Bostwick value) $< 9.5 - 2.3822 \times (\text{percentage of insoluble solids})$.
4. Tomato paste according to claim 1-3, wherein the paste is obtained by a hot break process, and optionally followed by concentration.
5. Tomato paste according to claim 1-4, having a red, yellow, pink, or orange color at 8.5°Brix.
6. Processed tomato product, comprising at least 10% (pref. 20%, more pref. 50%) tomatoes which are homozygous for *rin*, homozygous for *nor*, homozygous for *Nr*, homozygous for *alc*, heterozygous for combinations of two of the *rin*, *nor*, *Nr* or *alc* genes, or combinations thereof, whereby the term "processed tomato product" is defined as a product that comprises tomatoes which are subjected to a concentration step.
7. Product according to claim 6 comprising tomatoes which are homozygous for at least two genes of *rin*, *nor*, *Nr*, or *alc*.
8. Product according to claim 6-7 having a red, yellow, pink, or orange color at 8.5 Brix.
9. Product according to claim 6-8 wherein said tomatoes further comprise at least one color-enhancing gene.
10. Product according to claim 9 wherein said color enhancing genes are selected from the group consisting of old gold crimson (*ogc*), high pigment